



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

09/381,334

11/18/1999

KARI VIRTANEN

PM264014

3837

909

7590

05/12/2009

PILLSBURY WINTHROP SHAW PITTMAN, LLP  
P.O. BOX 10500  
MCLEAN, VA 22102

EXAMINER

IQBAL, KHAWAR

ART UNIT

PAPER NUMBER

2617

MAIL DATE

DELIVERY MODE

05/12/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 09/381,334	<b>Applicant(s)</b> VIRTANEN, KARI	
	<b>Examiner</b> KHAWAR IQBAL	<b>Art Unit</b> 2617	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 March 2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-4, 6-9, 11, 13 and 15-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-9, 11, 13, 15-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |                                                                                      |                                                                   |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____                                                          | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 3-18-09 has been entered.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claim 8 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The specification does not disclose or make obvious the claimed term of "a computer readable storage medium" claim 8, line 1. However, the specification fails to clearly define or provide support nearly added term "computer readable storage medium". Thus "a computer readable storage medium" was not described in the specification in such a way as to reasonably convey to one skilled in

the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-4, 6-9, 11, 13, 15-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Forslow (20030039237) in view of Amin (20020058506).

Regarding claim 1 Forslow teaches a method of registering a multimode mobile station (MS, fig. 2) in a telecommunications system, wherein the telecommunications system comprises a home location register (HLR 42, fig. 2) for maintaining mobile subscriber data and supports a first network (35, fig. 2) and a second network (51, fig. 2), the method comprising (fig. 2,9-10):

the home location register (HLR 42, fig. 2), maintaining the mobile subscriber (16, fig. 2) data (para. # 0011, fig. 2), and receiving from another network element, a message for requesting the mobile subscriber data, the mobile subscriber data comprising address information for accessing the mobile subscriber via the first (35, fig. 2) and the second network (51, fig. 2) (the home location register (HLR 42) stores a packet data protocol context for each mobile subscriber in corresponding subscription records, para. # 0013-0014, 0023-0024);

the home location register (HLR 42, fig. 2) maintaining a subscriber-specific access parameter which indicates, whether the mobile subscriber has access rights to the first network (35, fig. 2) and/or the second network (51, fig. 2) (The PDP subscription record includes subscribed quality of service profiles/parameters and list of services which a mobile subscriber is authorized to use along with a current subscriber location number corresponding to the address of the VLR currently serving the mobile subscriber subscribed-to external networks, a mobile subscriber MS ID such as International Mobile Subscriber Identity IMSI. etc. When a mobile station attaches to a general packet radio service GPRS network the mobile station's subscription record is retrieved from a home location register HLR 42. As a result of PDP context activation, a network layer bearer is established between the mobile station and the gateway GPRS support node GGSN 54, para. # 0011, 0030-0032 and 0050);

wherein the first network (35, fig. 2) and second network (51, fig. 2) are provided by a common operator and the first network (35, fig. 2) and second network (51, fig. 2) are of different type (para. # 0030, 0050, 0053-0054); and

in response to said message for requesting the mobile subscriber data, the home location register (HLR 42, fig. 2) sending the mobile subscriber data and also said subscriber-specific access parameter (para. # 0011, 0050, 0075, and 0099);

whereby the network element that requested the mobile subscriber data is operable to use said subscriber-specific access parameter for restricting the access of the mobile subscriber only to the first network or to the second network (para. # 0083 see above). Forslow states that the PDP subscription record includes subscribed quality

of service **profiles/parameters and list of services** which a mobile subscriber is authorized to use along with a current subscriber location number corresponding to the address of the VLR currently serving the mobile subscriber subscribed-to external networks, a mobile subscriber **MS ID such as International Mobile Subscriber Identity IMSI**. etc. When a mobile station attaches to a general packet radio service GPRS network the mobile station's subscription record is retrieved from a home location register HLR 42. As a result of PDP context activation, a network layer bearer is established between the mobile station and the gateway GPRS support node GGSN 54. Forslow teaches access parameters but fail to teach independently of the address information.

In an analogous art, Amin et al teaches access parameter (roaming restriction per MSC {rrm list, time specification, fig. 2, 4}) which indicates, independently of the address information {MIN/ESN, fig. 2 and 4} (para. # 0025-0028). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device of Forslow by specifically adding features in order to enhance a subscriber-specific access parameter and independently of address information to increasing the efficiency of the communication system for registry procedure as taught by Amin et al.

Regarding claim 2 Forslow teaches a method of registering a multimode mobile station in a telecommunications system, wherein the telecommunications system comprises a home location register for maintaining mobile subscriber data and supports a first network and a second network, wherein the first network and second network are

provided by a common operator, and the first network and second network are of different type (para. # 0030-0032, 0050, 0053-0054, fig. 2),

mobile subscriber data comprising address information for accessing the mobile subscriber via the first and the second network, and a subscriber-specific access parameter indicating, whether the mobile subscriber has access rights to the first network and/or the second network (para. # 0011, 0030-0032 and 0050),  
the method comprising:

sending from another network element to the home location register a message for requesting the mobile subscriber data, the mobile subscriber data comprising said subscriber-specific access parameter indicating, independently of the address information, whether the mobile subscriber is entitled to use the first network, the second network or both networks (para. # 0013-0014, 0023-0024);

the network element that requested the mobile subscriber data using said subscriber-specific access parameter to restrict the access of the mobile subscriber only to the first and/or the second network (para. # 0083 see above). Forslow does not specifically teaches access parameter which indicates, independently of the address information.

In an analogous art, Amin et al teaches access parameter (roaming restriction per MSC {rrm list, time specification, fig. 2, 4}) which indicates, independently of the address information {MIN/ESN, fig. 2 and 4} (para. # 0025-0028). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device of Forslow by specifically adding features in order to enhance a

subscriber-specific access parameter and independently of address information to increasing the efficiency of the communication system for registry procedure as taught by Amin et al.

Regarding claim 8 Forslow teaches a home location register comprises (abstract, figs. 2-5, 9-10):

a computer-readable storage medium configured to store: (para. # 0031, 0050, 0070, 0094)

mobile subscriber data for registering a multimode mobile station in a telecommunications system which supports a first network a second network and multimode mobile station, the mobile subscriber data comprising address information for accessing the mobile subscriber via the first and second network (para. # 0011, 0013, 0030-0032 and 0050);

a subscriber-specific access parameter which indicates, whether the mobile subscriber is entitled to use the first network and/or the second network (para. # 0011, 0030-0032 and 0050);

wherein the first network and second network are provided by a common operator and the first network and the second network are of different type (para. # 0030, 0050, 0053-0054). Forslow does not specifically teaches access parameter which indicates, independently of the address information.

In an analogous art, Amin et al teaches access parameter (roaming restriction per MSC {rrm list, time specification, fig. 2, 4}) which indicates, independently of the address information {MIN/ESN, fig. 2 and 4} (para. # 0025-0028). Therefore, it would



have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device of Forslow by specifically adding features in order to enhance a subscriber-specific access parameter and independently of address information to increasing the efficiency of the communication system for registry procedure as taught by Amin et al.

Regarding claim 15 Forslow teaches a network element for a telecommunications system, which telecommunications system comprises a home location register for maintaining mobile subscriber data for registering a multimode mobile station in the telecommunications system which supports a first network, a second network, and multimode mobile stations, the mobile subscriber data comprising address information for accessing the mobile subscriber via the first and the second network and a subscriber-specific access parameter indicating, whether the mobile subscriber has access right to the first network and/or the second network (para. # 0011, 0030-0032 and 0050, fig. 2, 9-10),

means for sending to the home location register a message for requesting the mobile subscriber data, the mobile subscriber data comprising said subscriber-specific access parameter indicating, whether the mobile subscriber has access right to the first network and/or the second network (para. # 0013-0014, 0023-0024, see claim 1);

means for using said subscriber-specific access parameter to restrict the access of the mobile subscriber only to the first and/or the second network (para. # 0083, see claim 1);

wherein the first network and second network are provided by a common operator, and the first network and the second network are of different type (para. # 0030, 0050, 0053-0054). Forslow does not specifically teaches access parameter which indicates, independently of the address information.

In an analogous art, Amin et al teaches access parameter (roaming restriction per MSC {rrm list, time specification, fig. 2, 4}) which indicates, independently of the address information {MIN/ESN, fig. 2 and 4} (para. # 0025-0028). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device of Forslow by specifically adding features in order to enhance a subscriber-specific access parameter and independently of address information to increasing the efficiency of the communication system for registry procedure as taught by Amin et al.

Regarding claim 3 Forslow teaches the mobile subscriber's access can be restricted only to one network even though a short message service had been defined for the mobile subscriber (para. # 0003, 0030-0032 and 0050).

Regarding claims 4, 6 Forslow teach wherein the network element that requested the mobile subscriber data uses said access parameter to prevent location updating in a network which the mobile subscriber is not entitled to use (para. # 0010-0012, 0030-0032 and 0050).

Regarding claims 7, 11, 13, 17 Forslow teach first network is a circuit-switch and second is packet-switched (para. # 0009, fig. 2).

Regarding claims 9, 16 Forslow teaches wherein the data structure is located in a home location register of the telecommunications system (para. # 0010-0012, 0030-0032 and 0050, fig. 2).

### ***Response to Arguments***

6. Applicant's arguments with respect to claims 1-4, 6-9, 11, 13, 15-17 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KHAWAR IQBAL whose telephone number is (571)272-7909. The examiner can normally be reached on 9 am to 6.30 pm Monday to Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, GEORGE ENG can be reached on 571-272-7495. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/George Eng/  
Supervisory Patent Examiner, Art Unit 2617

Khawar Iqbal  
Examiner  
Art Unit 2617